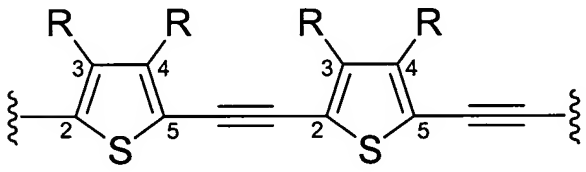
AMENDMENTS TO THE CLAIMS

Claims 1-5. (canceled)

6. (Previously presented) A conductive organic material comprising an oligomer of alternating ethynyl and thienyl groups as shown in Formula I:



(I)

wherein R, independently for each occurrence, is H or optionally substituted alkyl or alkoxy.

7. (Previously presented) An oligomer of claim 6, wherein R, independently for each occurrence, is selected from hydrogen, methyl, ethyl, butyl, $-CH_2CH_2OH$, $-CH_2CH_2OTBDMS$, or alkoxy, wherein TBDMS is *tert*-butyldimethylsilyl.

8. (Currently amended) An oligomer of claim 6, wherein a terminal thienyl group of the oligomer has ~~is functionalized at C2 with~~ an SH group.

9. (Previously presented) An oligomer of claim 8, wherein the SH group is adhered to a gold or palladium surface.

10. (Currently amended) An oligomer of claim 6, wherein a terminal thienyl group of the oligomer has ~~is functionalized at C2 with~~ a COOH group.

11. (Previously presented) An oligomer of claim 10, wherein the COOH group is adhered to an iron or aluminum surface.

12. (Currently amended) An oligomer of claim 6, wherein a terminal thienyl group of the oligomer has ~~is functionalized at C2 with~~ a phosphine group.

13. (Currently amended) An oligomer of claim 6, wherein a terminal thienyl group of the oligomer has ~~functionalized at C2 with~~ a halogen.

14. (Currently amended) An oligomer of claim 6, wherein a terminal thienyl group of the oligomer has ~~is functionalized at C2 with~~ a bipyridyl group.

15. (Currently amended) An oligomer of claim 6, wherein a terminal ethynyl group of the oligomer has ~~is functionalized with~~ a trimethylsilane group.

16. (Previously presented) An oligomer of claim 6, wherein the oligomer is air and light stable.

17. (Previously presented) An oligomer of claim 6, wherein the oligomer is freely soluble in organic solvents.

18. (Previously presented) An oligomer of claim 6, wherein the oligomer has a length of about 100 Å.

19. (Previously presented) An oligomer of claim 6, wherein the oligomer has a conductivity of about 100 to 200 $\Omega^{-1}cm^{-1}$.